# FORT CAMPBELL ENVIRONMENTAL HANDBOOK Guidance and Instructions DISPOSAL OF MRE HEATERS

#### 1. Purpose and Scope:

The purpose of this bulletin is to define the appropriate method for managing unused Flameless Ration Heater (FRH) that are provided in the MRE (Meals Ready to Eat) and to prevent their future mismanagement.

### 2. Reference:

- a. 40 CFR 261.3, Definition of Hazardous Waste.
- b. Tennessee Rule 1200-1-11-.02(1)(c), Definition of Hazardous waste.
- 3. Definitions: None

#### 4. General:

- a. Cases of MREs and, in many incidents, the individual packet, contain a light green pouch known as a Flameless Ration Heater (FRH) (NSN 8970-01-321-9153). The devices are very helpful for the troops in the field to heat their food, but can cause environmental problems.
- b. The heaters consist of a plastic bag containing a piece of fiber board and powdered magnesium or magnesium alloys and a few other materials. Powdered magnesium is a reactive solid and therefore a hazardous material.
- c. The instructions specify that the individual using the heater open the top of the bag, pour water into the bag to a specified level, slide the food into the pouch and fold the top down. When heaters are filled with water, the heating process is initiated. The magnesium and water react and the hazardous characteristics are eliminated.
- d. Warnings on the pouch indicate that hydrogen, a flammable gas, will be generated during the heating process and it warns the user not to place near an open flame. It also warns the user not to use more than ten in a vehicle or shelter. Adequate ventilation is required due to the hydrogen gas replacing oxygen. Temperatures will normally reach 200 degrees F and may, with an insufficient amount of moisture, reach 250 degrees F. This can cause burns on your skin if in contact. Caution is also given about carrying a heater in your clothing because of burns.
- e. As long as the MRE Heater is properly used, there is no environmental problem. When the heater is not activated and is discarded as a waste, it must now be treated as a hazardous waste. Hydrogen gas from several heaters can create a dangerous condition. Mixed with other flammable materials in a landfill, it can produce a fire that would be very difficulty to extinguish.
- f. Many soldiers either choose not to use their heaters or do not have water to activate them.

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### 5. Responsibilities:

- a. The EQO is responsible for:
  - 1) ensuring that all information is appropriately disseminated to all parties in his/her unit.
  - 2) ensuring that all unused FRHs that are generated in his/her unit are properly segregated from normal waste and turned in for proper disposition.
- b. Each individual who uses an FRH is responsible for properly disposing of his/her FRH after use.

### 6. Instructions for the disposal of unused Flameless Ration Heaters:

- a. While in the training area, unused heaters will be segregated from normal waste and collected in a separate container labeled "UNUSED FLAMELESS RATION HEATERS".
- b. When returning to the Garrison, containers used for collecting the unused heaters will be delivered to the Pollution Prevention Operations Center (PPOC) located on the corner of 2<sup>nd</sup> and Wickham.
- c. Only activated heaters may be disposed of as a normal waste.

### 7. Additional Guidance:

- a. For additional guidance and information, and answers to your questions, contact Mr. Bill Baggett, PWBC, Environmental Division, 798-9786.
- b. For future reference, place this document behind *Tab number 11* in your Fort Campbell Environmental Handbook.